Summary Report

of

Initial Site Investigations

at

Latham Trailer Sales, Inc.
Route 2
Bolton, Vermont

SMS Site # 93-1386

30 November, 1994

KDAI Project No. 9499-001

K-D **Associates, Inc.** Environmental Consulting & Laboratory Services
1350 Shelburne Road, Suite 209, South Burlington, Vermont 05403 (802) 862-7490

Site Information

Site Owner/Operator:
Don LeBeau
Latham Trailer Sales, Inc.
RFD# 1, Box 390
Waterbury, Vermont 05676
(802) 434-2770

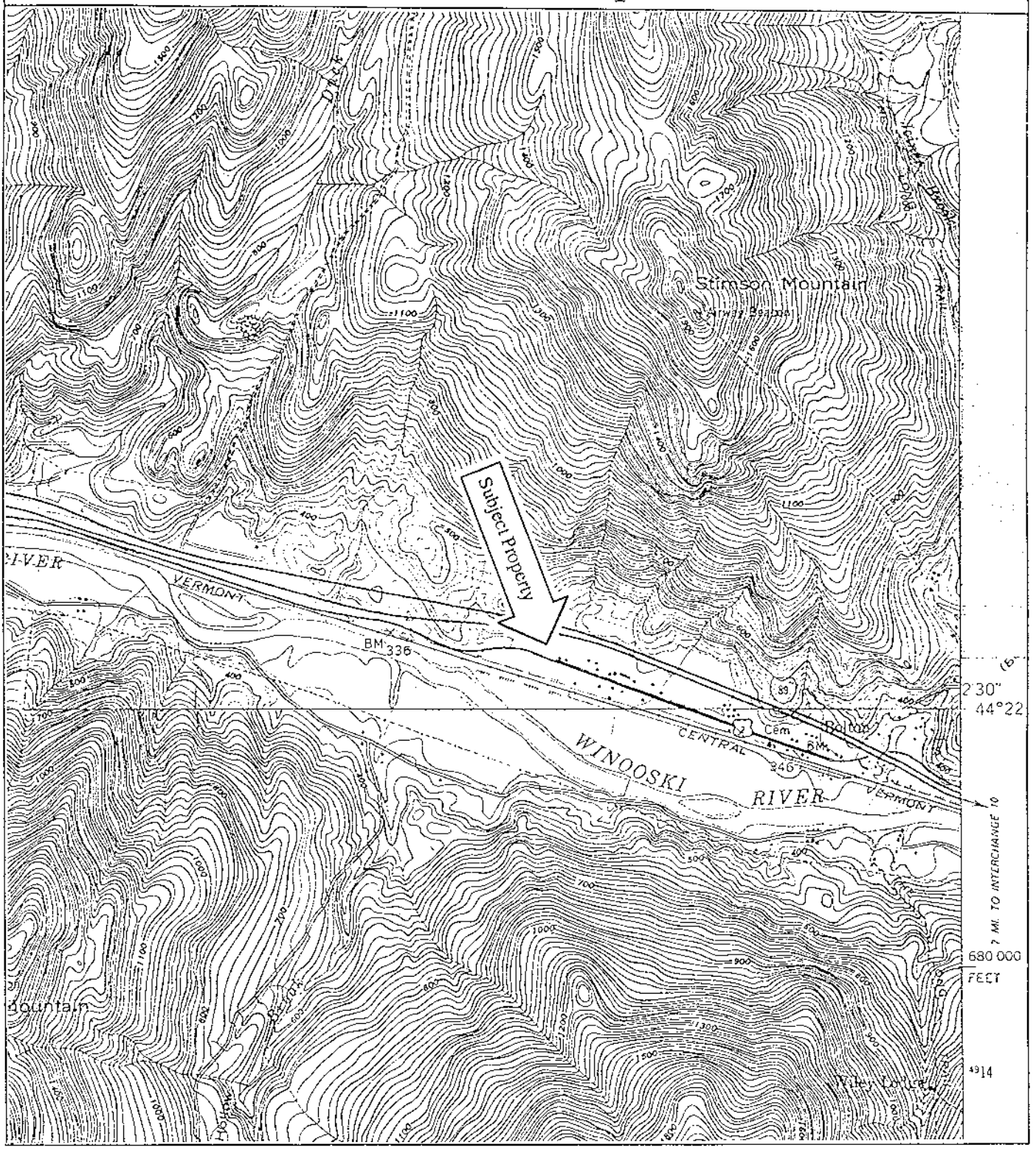
Site History

Mr. Don LeBeau owns and operates a mobile home sales business located on Route 2 in Bolton, Vermont. Prior to its current use, this site was undeveloped land which had limited use as pasture land. The site topography is generally level with approximate elevation of 330 feet above sea level. The site consists of ± 4.6 acres bound on the north by Interstate 89, and to the south by Route 2. The neighboring property to the west is undeveloped, while the site is adjacent to private residential and commercial properties to the east. The Winooski River (approx 310' a.s.l.) is located approximately 1000 feet to the south. (Area, vicinity and site maps are located in the Appendix).

On 27 April, 1993, one 1,000 gallon UST, approximately 15 years old and formally used for gasoline storage, was removed from the site. During this removal, contamination was identified (705 peak ppm by PID) in the tank bed and surrounding soil. No free product was noted, however, the groundwater in the area was estimated to approximately 10 feet below ground surface and likely was to have been impacted. Several private drinking water wells are located 250 to 300 feet from the release site. Area well logs indicate the underlying area consists of unconsolidated gravel to depths exceeding 130 feet below ground surface.

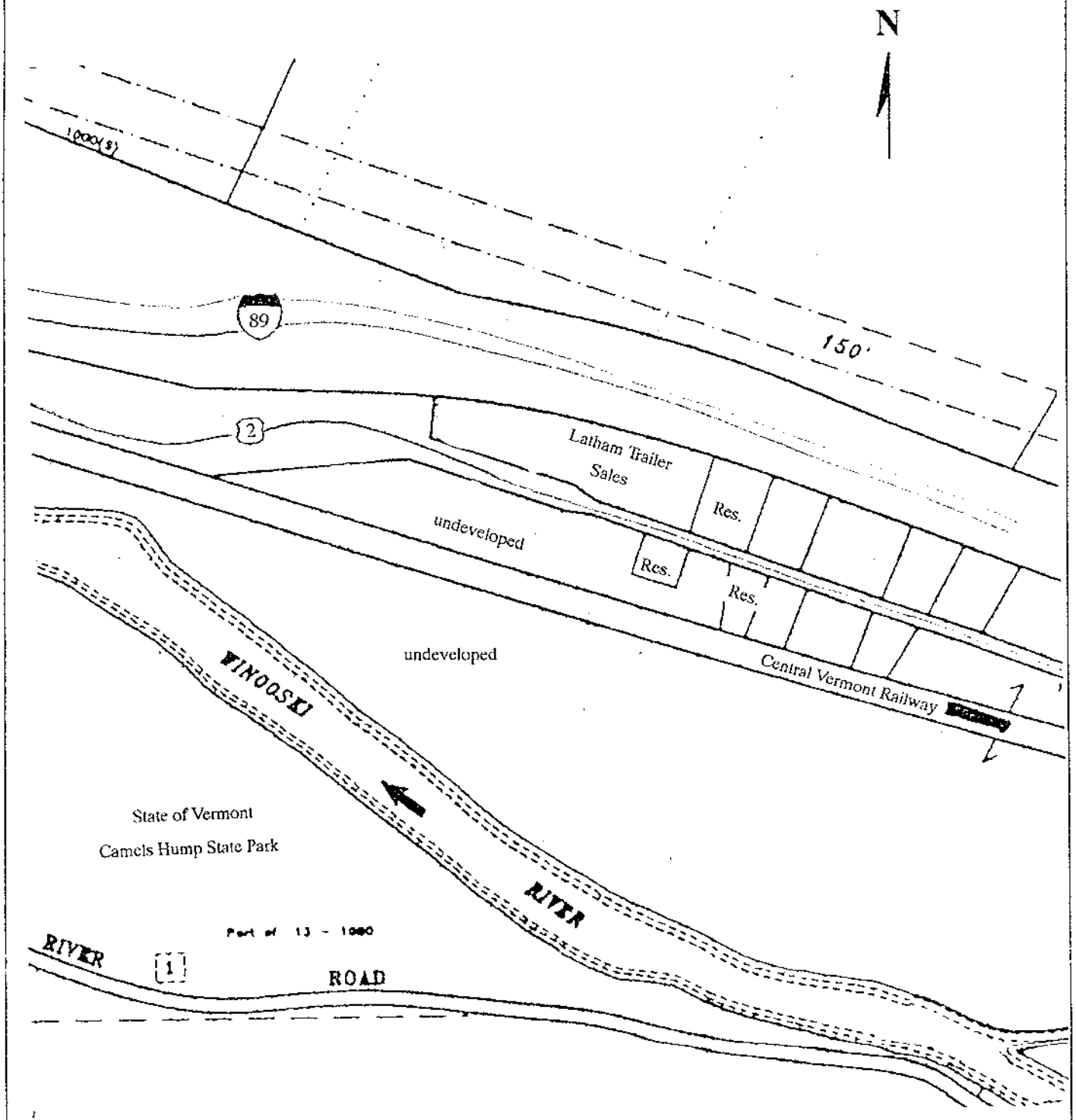
The Vermont Department of Environmental Conservation's Sites Management Section (SMS) requested that an investigation be performed to define the degree and extent of contamination at this site. At the Owner's request, K-D Associates, Inc. submitted a Work Plan and cost estimate for the specified investigation. The following report outlines the work performed with conclusions and recommendation.

Area Map



U.S.G.S 7.5 Minute Topo. - Richmond, VT
Scale: 1" = 2,000'

Vicinity Map



Site Investigation

Four groundwater monitoring wells were installed on site. The location of each was selected to supply information on horizontal groundwater flow direction and contaminant migration. Each well was installed approximately five feet into the water table with a minimum of 10 feet of 0.010-inch slotted PVC screen sections which were backfilled with filter sand. Each well was finished with a bentonite slurry and protective and locking caps at ground surface. (Well log information is located in the Appendix). Soil samples were inspected for petroleum odor, appearance and contamination by PID using bagged headspace techniques.

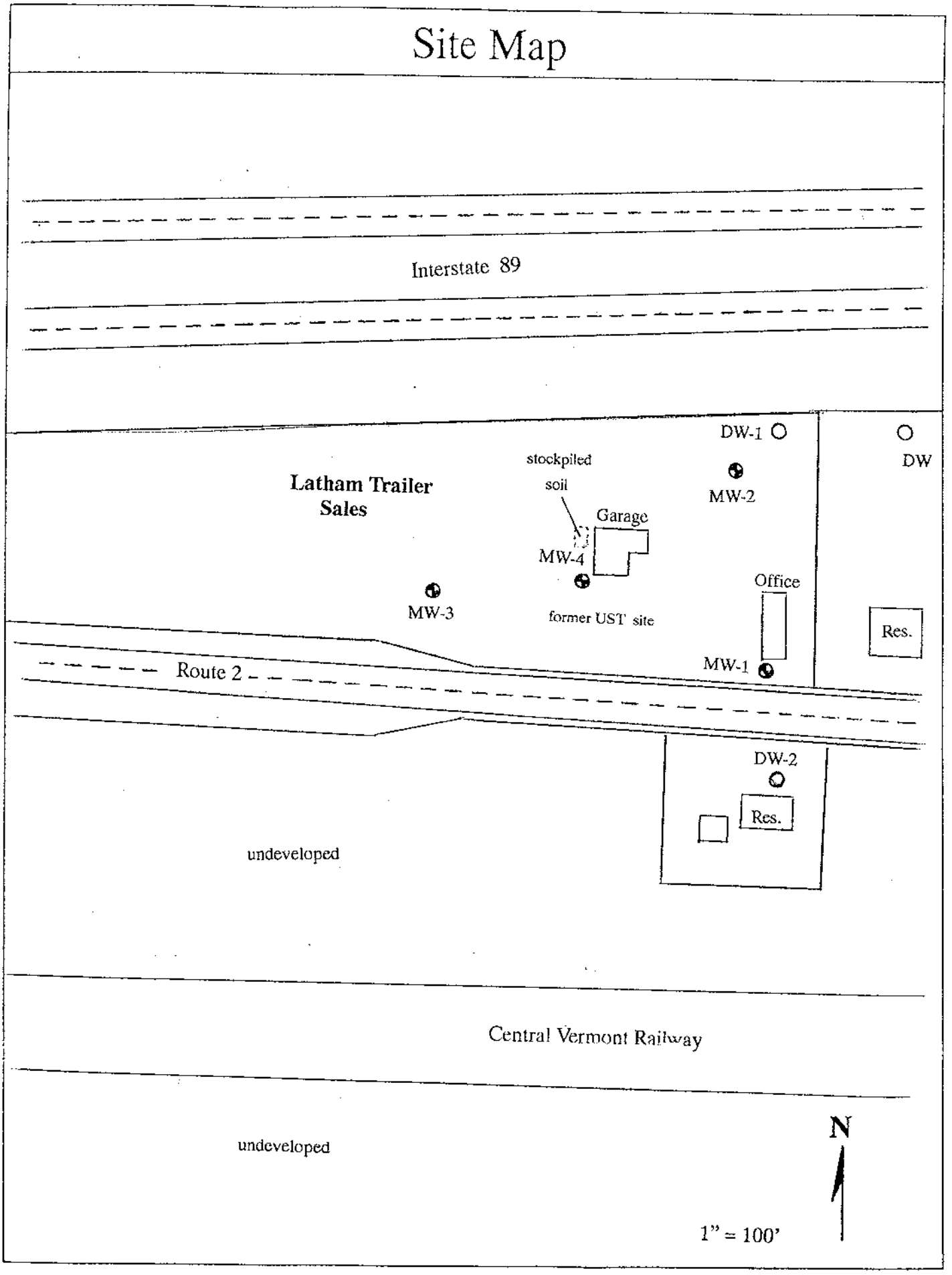
Elevations of the tops of well casings, depth to groundwater in each well and groundwater gradient measurements were collected relative to a 100.00 foot assigned benchmark. (A table of monitoring well and groundwater elevations is located in the Appendix).

Prior to sampling the groundwater in each monitoring well, at least three well volumes were bailed from each well with disposable Teflon bailers. Using standard sampling and preservation techniques, three of the four monitoring wells were sampled on 21 September, 1994. (MW-3 did not recover enough water after purging to retrieve a suitable sample). The two private drinking water wells closest to the release site were also sampled. A quality control field blank was also included.

All water samples were delivered to MicroAssays of Vermont of Middlesex for analysis by EPA 602 plus MTBE (by EPA 8260 GC/MS confirmation). (Laboratory results are located in the Appendix).

The stockpiled soil (approximately 5 cu. yds.) on site was also re-inspected. Organic vapor measurements were collected from random sub-samples representing all areas and depths of the stockpiled soil using a Photovac MicroTIP™ PID. Calibration to isobutylene 100 ppm in air was performed immediately prior to sampling. Measurements were taken using bagged headspace techniques.

Site Map


Interstate 89
DW-1
DW
stockpiled
soil
Latham Trailer
Sales
MW-2
Garage
MW-4
MW-3
former UST site
Office
Res.
MW-1
Route 2
DW-2
Res.
undeveloped
Central Vermont Railway
undeveloped
N
1" = 100'

Discussion and Recommendations

Field screening of the stockpiled soil on site (28 ppm to 132 ppm) indicates an overall reduction in volatile organic compounds (VOC's) from initial readings, however, all of the eight sample areas produced measurable levels of contamination. It is recommended that the soil remain stockpiled until readings of less than 1 ppm (non-detect) by PID are produced. (Tilling of the soil is not recommended.)

Detectable PID readings were also noted in the soil during the installation of MW-4. A peak of 760 ppm was recorded at a depth of approximately 8 to 9 feet. A noticeable petroleum odor was also present at that depth.

The static groundwater measurements in each monitoring well indicates a north to south general groundwater flow direction. This suggests that the shallow groundwater flow is not directly toward the area drinking water wells, but it is in the direction of the Winooski River approximately 1000 feet from the release site. The hydraulic gradient across the site ranges from 0.014 to 0.041 ft/ft. Using this gradient and estimated values for conductivity (10^2 to 10^3 gpd/ft^2) and effective porosity (.20) the flow rate can be expected to range from 70 to 2050 feet/year.

Results of groundwater and drinking water samples are presented in tabular form in the Appendix. Results for both of the drinking water samples and MW-1, MW-2 and the blank were below quantitation limits for all parameters for the method employed. Concentrations above Vermont Groundwater Enforcement Standards for toluene, ethylbenzene and total xylenes were detected in MW-4, which is representative of the release site. No free product was detected in any well. The downgradient extent of the dissolved-phase of contamination has not been defined, but based on this round of sampling, is assumed that none of the nearby water supply wells or the Winooski River have been impacted.

The threat of petroleum vapor migration and accumulation appears to be limited. The sales office is the nearest structure with a basement which is poured concrete in construction. No detectable levels of VOC's were recorded. This building (especially the basement area) is not regularly occupied as living space.

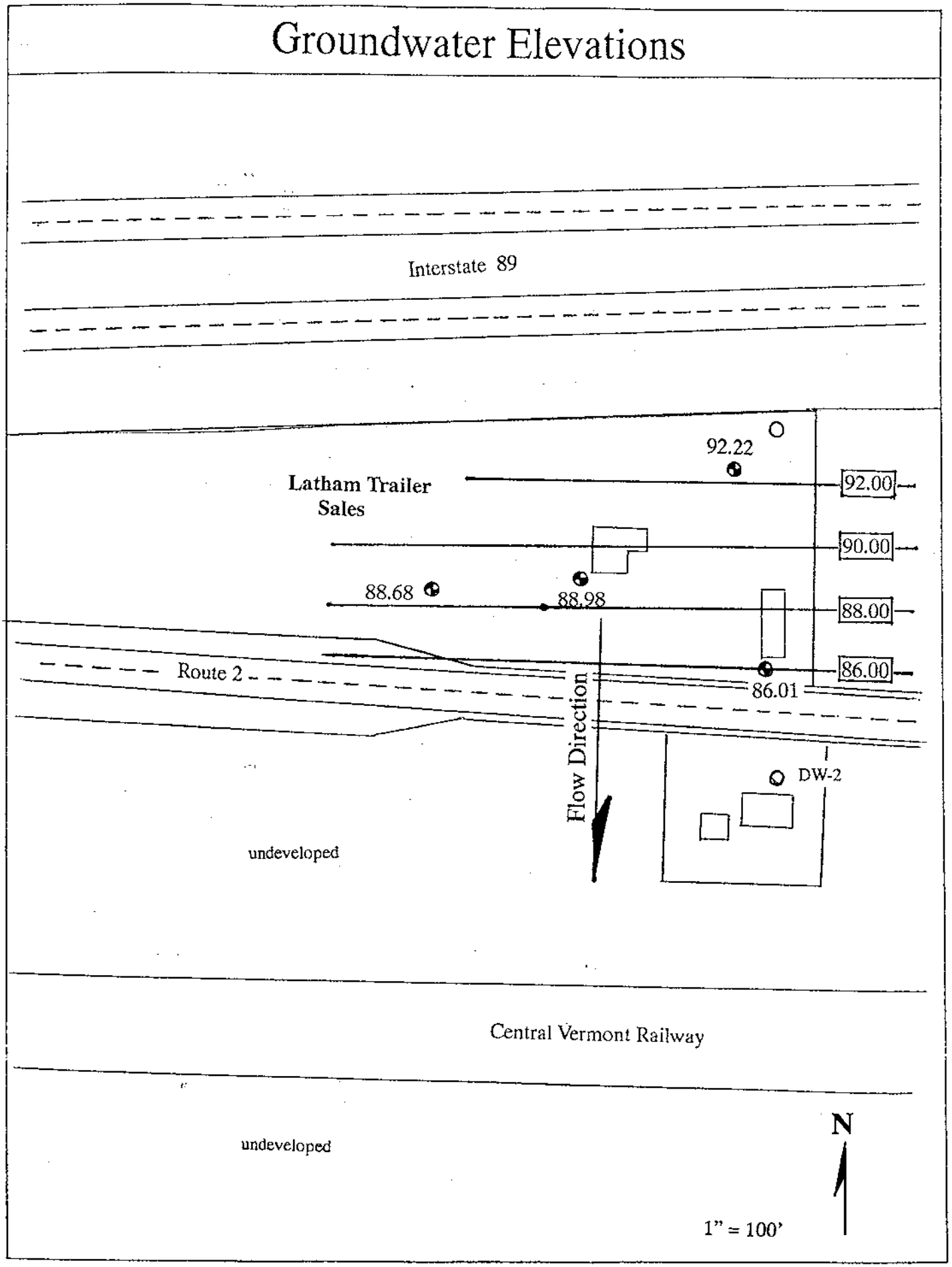
Impacts to the soil and groundwater have been demonstrated through this initial round of investigation. Although the source of contamination has been removed, additional investigation is warranted at this site to monitor and further characterize the extent of contamination. K-D Associates, Inc. proposes a duplicate round of groundwater sampling and analysis from the existing wells in the spring of 1995 to assess any changes in conditions of the site and determine if additional monitoring or active remedial measures are appropriate at the site.

Groundwater Elevations - Latham Trailer Sales

Well I.D.	Well Evevation (top of casing) (feet)	Depth to Groundwater (from top of casing) (feet)	Groundwater Elevation (feet)
MW-1	101.22	9.00	92.22
MW-2	98.09	12.08	86.01
MW-3	100.18	11.50	88.68
MW-4	100.31	11.33	88.98

Note: 100.00 foot benchmark assigned to pavement at northwest corner of Sales Office Building.

Groundwater Elevations



Latham Trailer Sales
Groundwater / Drinking Water Sample Results

Results in ug/L

Well I.D.	Toluene	Ethylbenzene	Xylenes	MTBE
MW-1	BPQL	BPQL	BPQL	BPQL
MW-2	BPQL	BPQL	BPQL	BPQL
MW-3	Insufficient sample recovery			
MW-4	3310	1270	10700	BPQL
DW-1	BPQL	BPQL	BPQL	BPQL
DW-2	BPQL	BPQL	BPQL	BPQL
blank	BPQL	BPQL	BPQL	BPQL

VGES	2420	680	400	

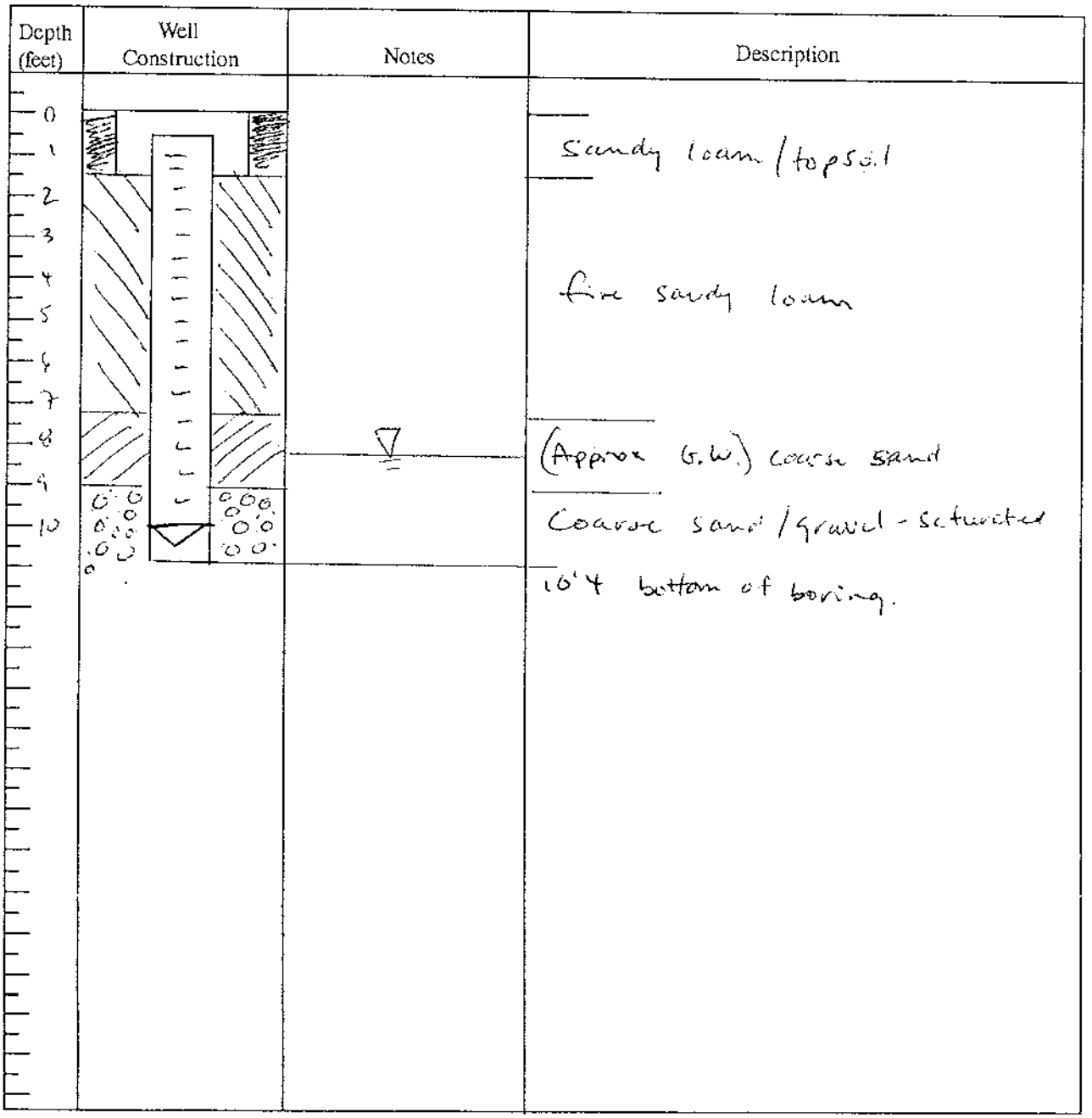
VGES = Vermont Groundwater Enforcement Standard
BPQL = Below Practical Quantitation Limit

APPENDIX

K-D Associates, Inc. 1350 Shelburne Rd. Suite 209, So. Burlington, VT 05403 (802) 862-7490

Project Name ATHAM TRAILER SALES
Location Rte 2
Bolton, VT
KDAI Proj. No. 9499-001
Drilling Log No. MW-1
Date 7-18-94

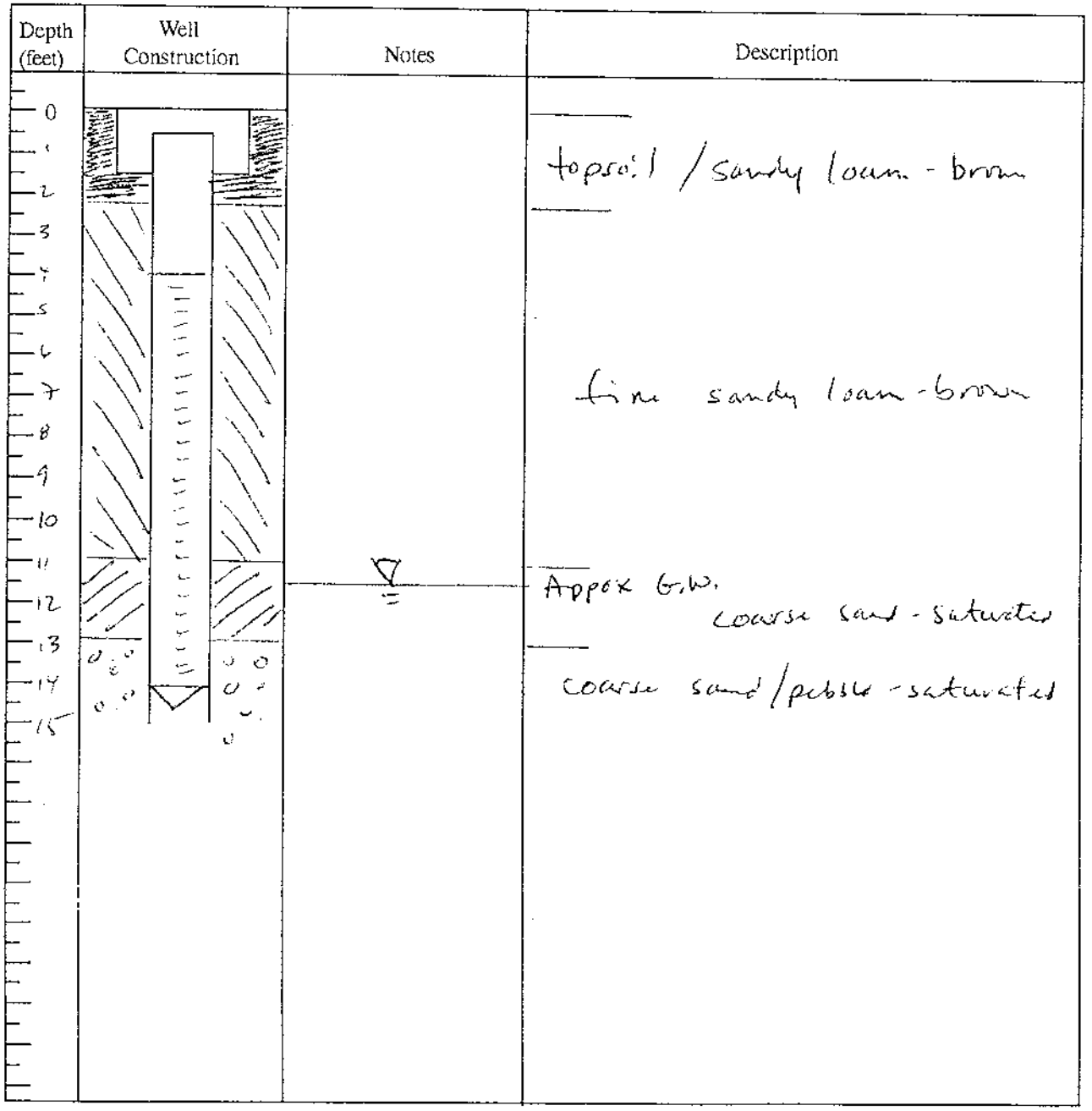
Casing type SCH 40 PVC
Casing Diameter 2"
Casing length NONE
Screen type 0.010"
Screen length 10'
Total length below ground 10' 2"



K-D Associates, Inc. 1350 Shelburne Rd. Suite 209, So. Burlington, VT 05403 (802) 862-7490

Project Name LATHAM TRAILER SALES
Location Rte 2
Bolton, VT
KDAI Proj. No. 9499-001
Drilling Log No. MW-2
Date 7-18-94

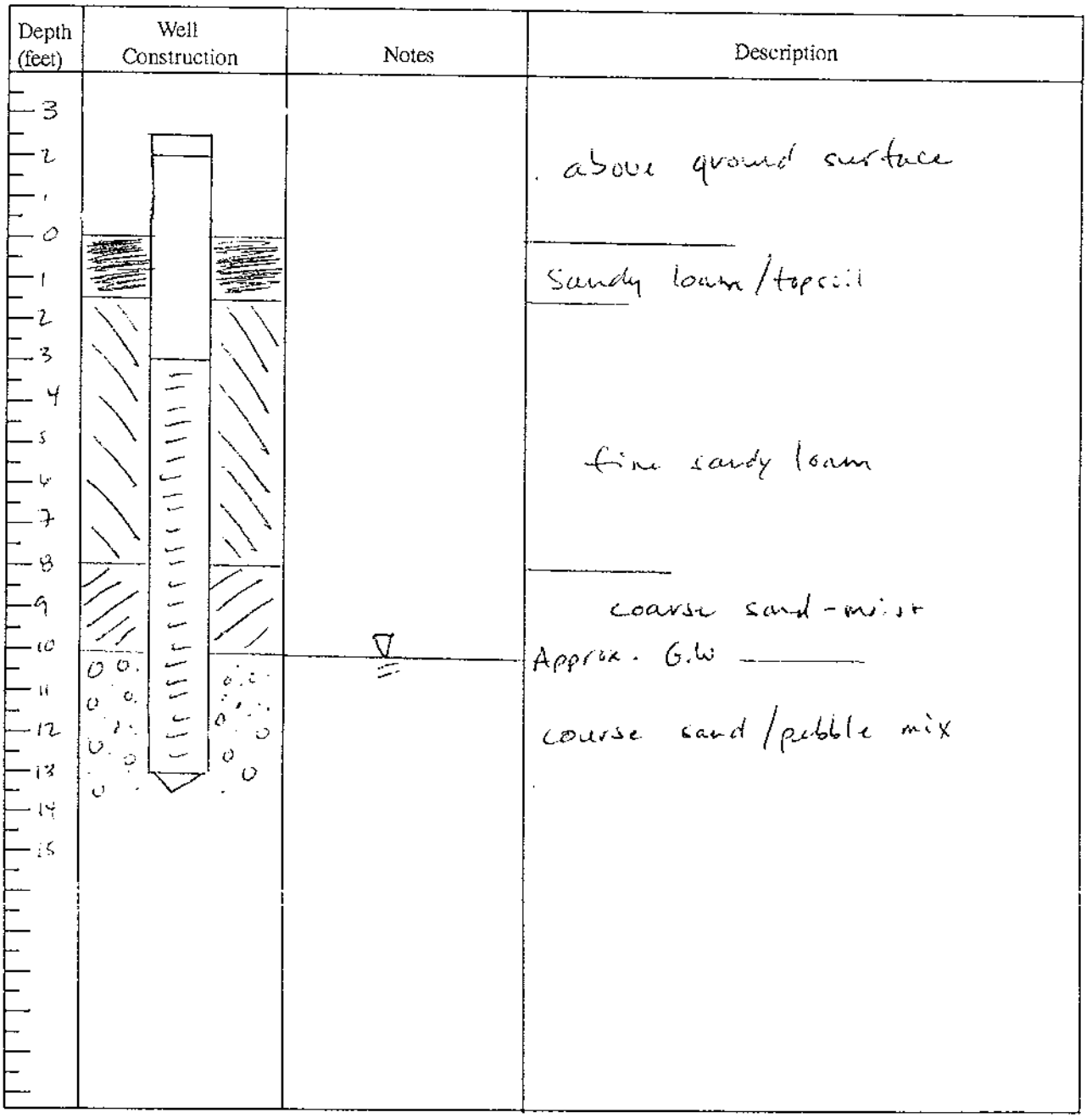
Casing type SCH 40 PVC
Casing Diameter 2"
Casing length 4'
Screen type 0.010"
Screen length 10'
Total length below ground 14' 2"



K-D Associates, Inc. 1350 Shelburne Rd. Suite 209, So. Burlington, VT 05403 (802) 862-7490

Project Name LATHAM TRAILER SALES
Location Rte 2
Bolton, VT
KDAI Proj. No. 9499-001
Drilling Log No. MW-3
Date 7-18-94

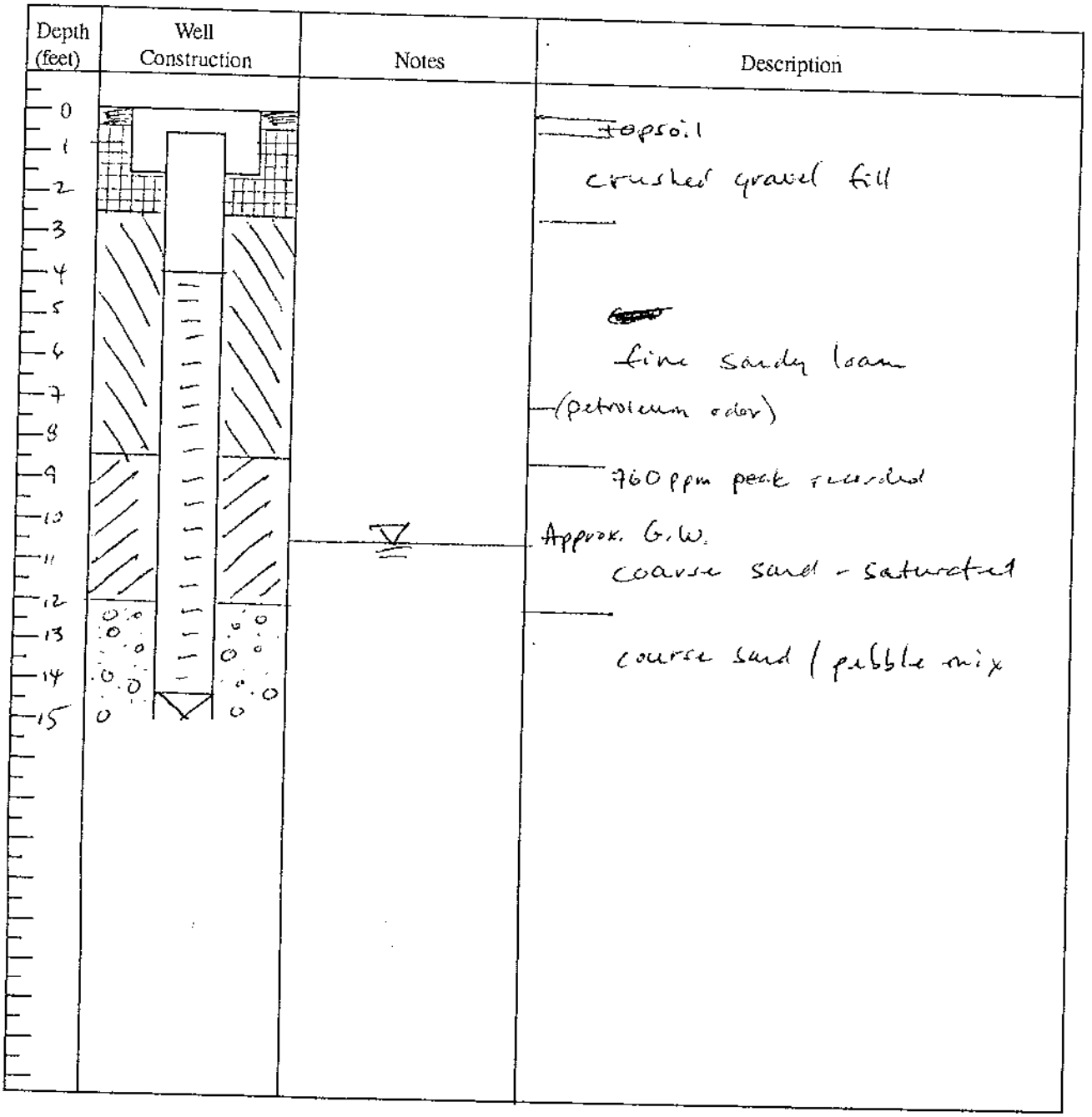
Casing type SCH 40 PVC
Casing Diameter 2"
Casing length 5'
Screen type 0.010"
Screen length 10'
Total length below ground 13'2"



K-D Associates, Inc. 1350 Shelburne Rd. Suite 209, So. Burlington, VT 05403 (802) 862-7490

Project Name LATHAM TRAILER SALES
Location Rte 2
Bolton, VT
KDAI Proj. No. 9499-001
Drilling Log No. MW-4
Date 7-18-94

Casing type SCH 40 PVC
Casing Diameter 2"
Casing length 4'
Screen type 0.010"
Screen length 10'
Total length below ground 14' 2"



LABORATORY ANALYSIS

CLIENT NAME:	K-D Associates, Inc.	REF #:	9863
ADDRESS:	1350 Shelburne Rd #209	PROJECT NO.:	9499-001
	So. Burlington, VT 05403		
SAMPLE LOCATION:	Latham	DATE OF SAMPLE:	9/21/94
SAMPLER:	Brian Schultz	DATE OF RECEIPT:	9/21/94
		DATE OF ANALYSIS:	9/30,10/1/94
ATTENTION:	Brian Schultz	DATE OF REPORT:	10/7/94

Pertaining to the analyses of specimens submitted under the accompanying chain of custody form, please note the following:

- Water samples submitted for VOC analysis were preserved with HCl.
- Specimens were processed and examined according to the proccdures outlined in the specified method.
- Holding times were honored.
- Instruments were appropriately tuned and calibrations were checked with the frequencies required in the specified method.
- Blank contamination was not observed at levels interfering with the analytical results.
- Continuing calibration standards were monitored at intervals indicated in the specified method. The resulting analytical precision and accuracy were determined to be within method QA/QC acceptance limits.
- The efficiency of analyte recovery for individual samples was monitored by the addition of surrogate analytes to all samples, standards, and blanks. Surrogate recoveries were found to be within laboratory QA/QC acceptance limits, unless noted otherwise.

Reviewed by:

Brendan McMahon, Ph.D.
Director, Chemical Services

LABORATORY REPORT

CLIENT NAME:	K-D Associates, Inc.	PROJECT CODE:	9499-001
PROJECT NAME:	Latham	REF.#:	9863
REPORT DATE:	October 7, 1994	STATION:	DW-1 (DW-31)
DATE SAMPLED:	September 21, 1994	TIME SAMPLED:	11:10
DATE RECEIVED:	September 21, 1994	SAMPLER:	Brian Schultz
ANALYSIS DATE:	October 1, 1994	SAMPLE TYPE:	Water

EPA METHOD 602 by EPA METHOD 8260 (GC/MS Confirmation)

PARAMETER	PQL (µg/L)	Concentration (µg/L)
Benzene	1	BPQL
Toluene	1	BPQL
Ethylbenzene	1	BPQL
Xylenes	3	BPQL
MTBE	1	BPQL
Chlorobenzene	1	BPQL
1,2-Dichlorobenzene	1	BPQL
1,3-Dichlorobenzene	1	BPQL
1,4-Dichlorobenzene	1	BPQL

Surrogate Recovery: 102%

BPQL = Below Practical Quantitation Limit (PQL)

MicroAssays of Vermont, Inc. P.O. Box 189 Middlesex, Vermont 05602 (802) 223-1468 FAX 223-8688

LABORATORY REPORT

CLIENT NAME:	K-D Associates, Inc.	PROJECT CODE:	9499-001
PROJECT NAME:	Latham	REF.#:	9863
REPORT DATE:	October 7, 1994	STATION:	DW-2 (DW-13)
DATE SAMPLED:	September 21, 1994	TIME SAMPLED:	11:25
DATE RECEIVED:	September 21, 1994	SAMPLER:	Brian Schultz
ANALYSIS DATE:	October 1, 1994	SAMPLE TYPE:	Water

EPA METHOD 602 by EPA METHOD 8260 (GC/MS Confirmation)

PARAMETER	PQL (µg/L)	Concentration (µg/L)
Benzene	1	BPQL
Toluene	1	BPQL
Ethylbenzene	1	BPQL
Xylenes	3	BPQL
MTBE	1	BPQL
Chlorobenzene	1	BPQL
1,2-Dichlorobenzene	1	BPQL
1,3-Dichlorobenzene	1	BPQL
1,4-Dichlorobenzene	1	BPQL

Surrogate Recovery: 101%

BPQL = Below Practical Quantitation Limit (PQL)

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LABORATORY REPORT

CLIENT NAME:	K-D Associates, Inc.	PROJECT CODE:	9499-001
PROJECT NAME:	Latham	REF.#:	9863
REPORT DATE:	October 7, 1994	STATION:	MW-1
DATE SAMPLED:	September 21, 1994	TIME SAMPLED:	11:50
DATE RECEIVED:	September 21, 1994	SAMPLER:	Brian Schultz
ANALYSIS DATE:	September 30, 1994	SAMPLE TYPE:	Water

EPA METHOD 602 by EPA METHOD 8260 (GC/MS Confirmation)

PARAMETER	PQL (µg/L)	Concentration (µg/L)
Benzene	1	BPQL
Toluene	1	BPQL
Ethylbenzene	1	BPQL
Xylenes	3	BPQL
MTBE	1	BPQL
Chlorobenzene	1	BPQL
1,2-Dichlorobenzene	1	BPQL
1,3-Dichlorobenzene	1	BPQL
1,4-Dichlorobenzene	1	BPQL

Surrogate Recovery: 102%

BPQL = Below Practical Quantitation Limit (PQL)

MicroAssays of Vermont, Inc. P.O. Box 189 Middlesex, Vermont 05602 (802) 223-1468 FAX 223-8688

LABORATORY REPORT

CLIENT NAME:	K-D Associates, Inc.	PROJECT CODE:	9499-001
PROJECT NAME:	Latham	REF.#:	9863
REPORT DATE:	October 7, 1994	STATION:	MW-2
DATE SAMPLED:	September 21, 1994	TIME SAMPLED:	12:15
DATE RECEIVED:	September 21, 1994	SAMPLER:	Brian Schultz
ANALYSIS DATE:	September 30, 1994	SAMPLE TYPE:	Water

EPA METHOD 602 by EPA METHOD 8260 (GC/MS Confirmation)

PARAMETER	PQL (µg/L)	Concentration (µg/L)
Benzene	1	BPQL
Toluene	1	BPQL
Ethylbenzene	1	BPQL
Xylenes	3	BPQL
MTBE	1	BPQL
Chlorobenzene	1	BPQL
1,2-Dichlorobenzene	1	BPQL
1,3-Dichlorobenzene	1	BPQL
1,4-Dichlorobenzene	1	BPQL

Surrogate Recovery: 102%

BPQL = Below Practical Quantitation Limit (PQL)

MicroAssays of Vermont, Inc. P.O. Box 189 Middlesex, Vermont 05602 (802) 223-1468 FAX 223-8688

LABORATORY REPORT

CLIENT NAME:	K-D Associates, Inc.	PROJECT CODE:	9499-001
PROJECT NAME:	Latham	REF.#:	9863
REPORT DATE:	October 7, 1994	STATION:	MW-4
DATE SAMPLED:	September 21, 1994	TIME SAMPLED:	12:50
DATE RECEIVED:	September 21, 1994	SAMPLER:	Brian Schultz
ANALYSIS DATE:	October 1, 1994	SAMPLE TYPE:	Water

EPA METHOD 602 by EPA METHOD 8260 (GC/MS Confirmation)

PARAMETER	PQL (µg/L)	Concentration (µg/L)
Benzene	50	BPQL
Toluene	50	3310
Ethylbenzene	50	1270
Xylenes	150	10700
MTBE	50	BPQL
Chlorobenzene	50	BPQL
1,2-Dichlorobenzene	50	BPQL
1,3-Dichlorobenzene	50	BPQL
1,4-Dichlorobenzene	50	BPQL

Surrogate Recovery: 102%

BPQL = Below Practical Quantitation Limit (PQL)

MicroAssays of Vermont, Inc. P.O. Box 189 Middlesex, Vermont 05602 (802) 223-1468 FAX 223-8688

LABORATORY REPORT

CLIENT NAME:	K-D Associates, Inc.	PROJECT CODE:	9499-001
PROJECT NAME:	Latham	REF.#:	9863
REPORT DATE:	October 7, 1994	STATION:	Trip Blank
DATE SAMPLED:	September 21, 1994	TIME SAMPLED:	13:00
DATE RECEIVED:	September 21, 1994	SAMPLER:	Brian Schultz
ANALYSIS DATE:	September 30, 1994	SAMPLE TYPE:	Water

EPA METHOD 602 by EPA METHOD 8260 (GC/MS Confirmation)

PARAMETER	PQL (µg/L)	Concentration (µg/L)
Benzene	1	BPQL
Toluene	1	BPQL
Ethylbenzene	1	BPQL
Xylenes	3	BPQL
MTBE	1	BPQL
Chlorobenzene	1	BPQL
1,2-Dichlorobenzene	1	BPQL
1,3-Dichlorobenzene	1	BPQL
1,4-Dichlorobenzene	1	BPQL

Surrogate Recovery: 105%

BPQL = Below Practical Quantitation Limit (PQL)

MicroAssays of Vermont, Inc. P.O. Box 189 Middlesex, Vermont 05602 (802) 223-1468 FAX 223-8688

CHAIN OF CUSTODY RECORD

MicroAssays of Vermont
RR# Box 5210 P.O. Box 189
Montpelier, VT 05602
Ph. (802)223-1468 Fax (802)223-8688

drawn by: _____

CLIENT NAME K-D ASSOCIATES, INC
ADDRESS 1350 SHELBURNE RD #209
PROJECT NAME SO. BURLINGTON, VT 05403
PROJECT NUMBER → LATHAM - 9499-001
PROJECT MANAGER B. SCHULTZ 862-7490
SAMPLER B. SCHULTZ FAX 660-2462

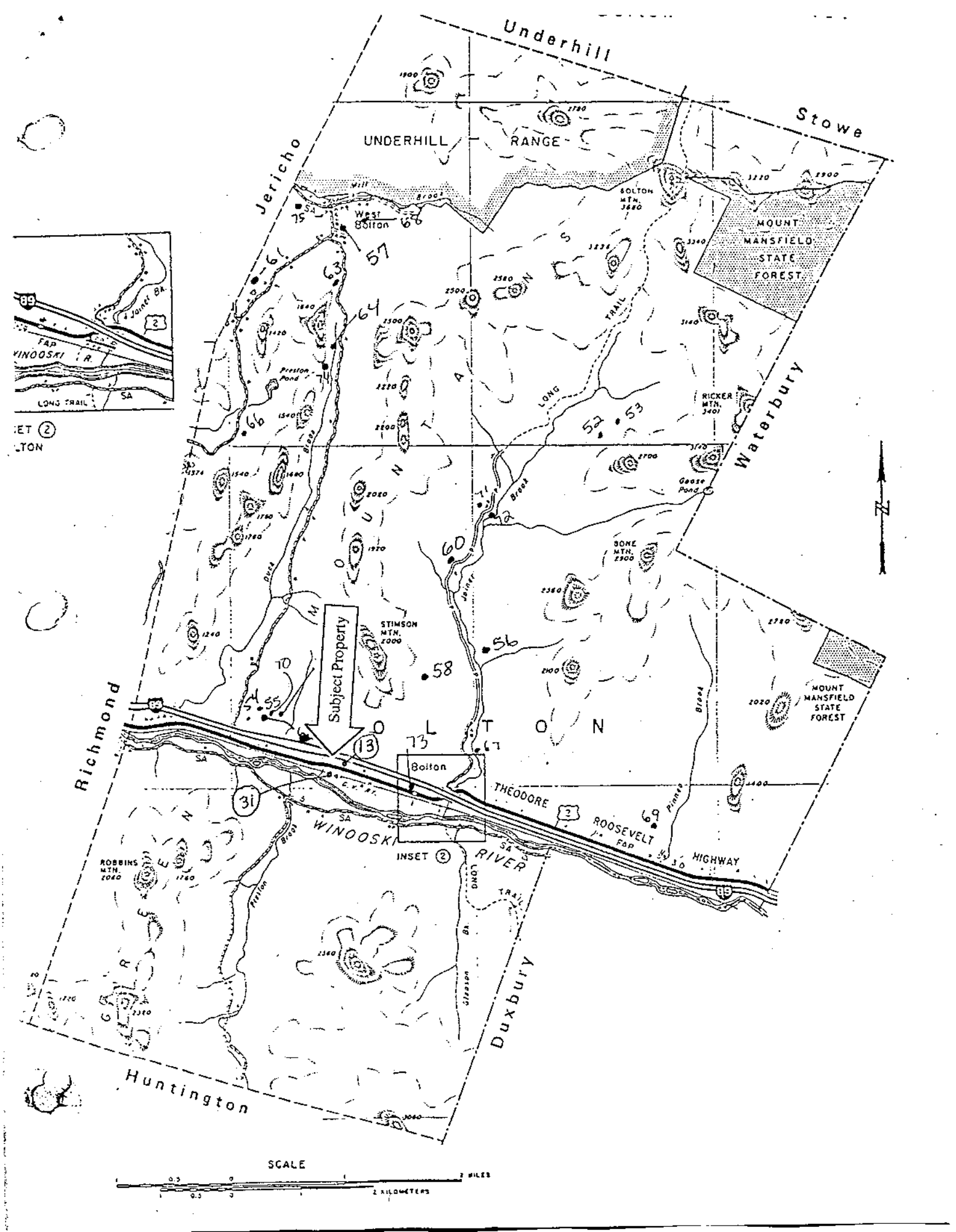
ANALYSIS REQUESTED

Page 1 of 1

MAV # 9863

Sample Location	Date	Time	# of cont.	pres ervd	Sample Type	EPA 602 + MTBE	REMARKS:
OK MW - 1 ✓	9-21-94	11:50	2	HCl	H_2O	✓	
OK MW - 2 ✓		12:15				✓	
~~MW-3~~							
OK MW - 4 ✓		12:50				✓	
OK Blank ✓		1300				✓	
OK DW - 1 ✓		11:10				✓	
OK DW - 2 ✓		11:25				✓	

Relinquished by:	Received by:	Date/Time	Relinquished by:	Received by:	Date/Time
B. Schultz	T. Gray	9/21/94 1:44			


Underhill
Stowe
Jericho
Waterbury
Richmond
Huntington
Duxbury
UNDERHILL RANGE
MOUNT MANSFIELD STATE FOREST
Subject Property
Bolton
WEST BOLTON
BOLTON MTN. 3680
STIMSON MTN. 2000
BONE MTN. 2500
RICKER MTN. 3401
ROBBINS MTN. 2040
Preston Pond
Goose Pond
WINOOSKI RIVER
THEODORE ROOSEVELT HIGHWAY
LONG TRAIL
INSET (2)
SCALE
2 MILES
2 KILOMETERS

WR #71
1974

TOWN: Bolton

WELL NOS.: 1-25

BASIC WELL DATA

Well No.	Well Owner		Yield (gpm)	Total Depth (feet)	Depth To Bedrock (feet)	Static Water Level	Other Info
1	Bolton Valley Corp.	23C2	6.3	408	3	30	
2	Bolton Valley Corp.	23C2	1.75	522	6		
3	Bolton Valley Corp.	23C2	.5	298	15		
4	Ward Fuller	23D1	100	265	38	60	
5	Fernand Martell	23C3	4	273	3		
6	Herb Clark	23D1	6.5	254	45		
7	Walter Champney	23A6	12	80			
8	Charles Jones	23B7	25	310	46	28	
9	Ward Fuller	23B7	30	225	70		
10	Neil Pendergast	23C3	15	265	45		
11	Arnold Raleigh	23A8	45	237	57		
12	Sidney Champney	23B7	75	121			
13	Neil Pendergast	23A9	5	69			
14	Ray Atwood	23A9	25	137			
15	~~Don Burke~~ moved to Richmond	~~23A6~~	~~100~~	~~48~~			
16	Bernard Perreault	23A8	8	198	69		
17	John Madden	23C3	1.5	217	5	40	
18	Raymond Fuller	23B7	3	259	143		
19	Arthur Le Blanc	23D4	7½	215	136		#8
20	Jeff Carter	23A8	5	188	5		#8
21	Greg Kitty	23A5	½	348	60		8
22	Douglas Miller	23A6	8	148	102		8
23	Steve Guptil	23A9	6	173	12		8
24	Alfred Rivers	23B7	3	223	3		8
25	Moved to Jericho ~~Charles Shackett~~		1	223	86		8

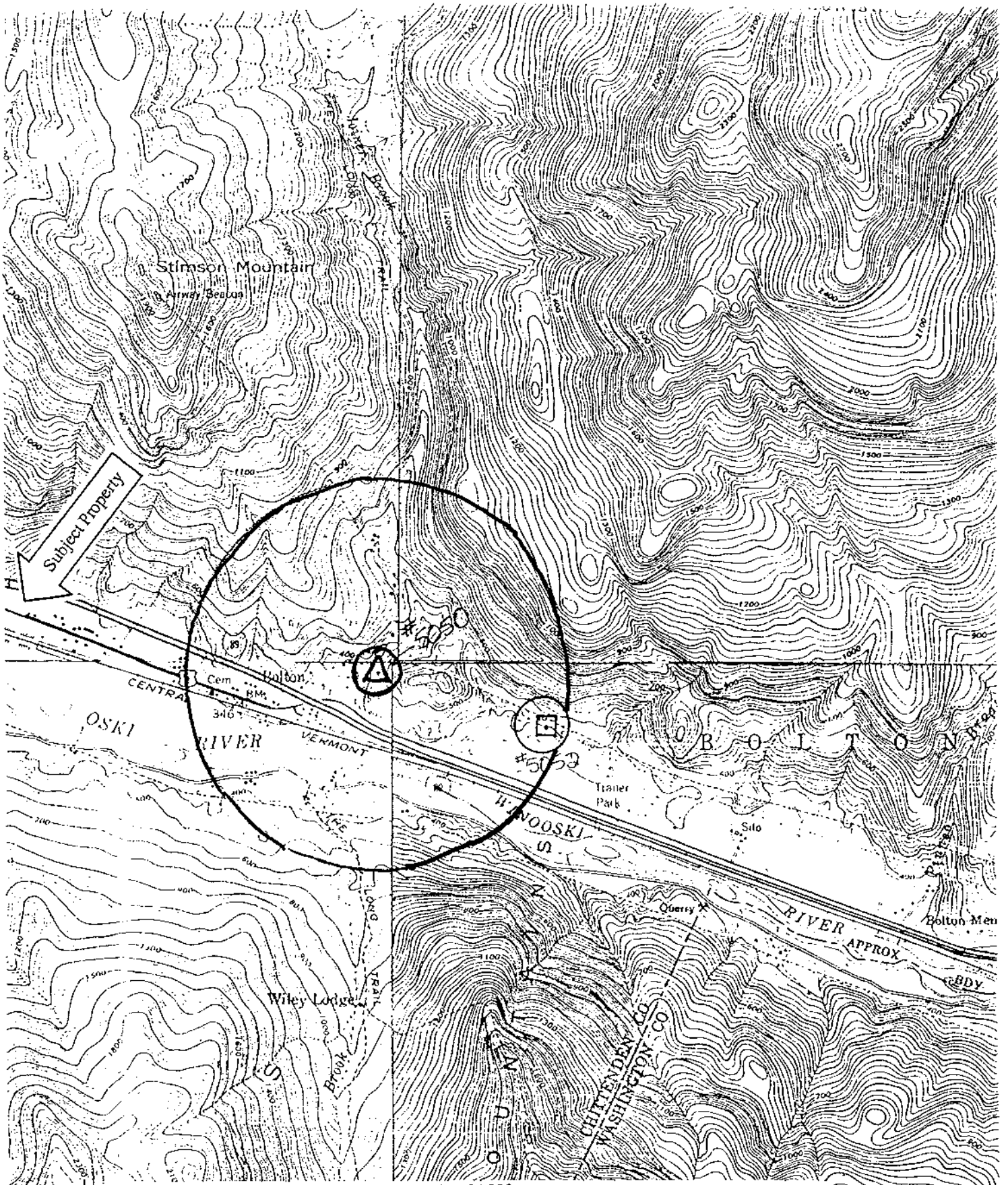
WR #71
1974

TOWN: BOLTON

WELL NOS.: 26-50

BASIC WELL DATA

Well No.	Well Owner	Yield (gpm)	Total Depth (feet)	Depth To Bedrock (feet)	Static Water Level	Driller No.
26	ROLAND GABRIEL 23C3	7	175	40	30	80
27	MR. WARD FULLER 23D1	6	200	30		108
28	PAUL LARIVIERE 23A8	6	174	65		8
29	BOLTON FIRE DIST. (TOWN) 23B7	16	112	sand and gravel	±30	2
30	MIKE BAKER 23A9	3/4	498	39		8
31	DON LEBEAU 23A9	12	138	GRAVEL/137		8
32	FRED KIEL 23A9	1½	325	30/37	6	166
33	LEE WAGNER 23A9	4	372	44/49		8
34	Gary Pratt 23A8	2	310	58/61		8
35	Doug Williams 23A9	1	323	23/30		8
36	Rich Dunn Jr. 23A9	2	150	5/37	10	91
37	HERBERT & DOROTHY NASH 23D1	100	175	10/gravel	30	18
38	Gerald Sequin 23A6	1/8	448	44/45		8
39	XENOPHON WHEELER 23A7	6	399	8/32		8
40	" " " 23A8	12	299	21/29		8
41	CHARLES ASHLEY 23B7	12	280	100/109	10	68
42	GEORGE CHAMPNEY	150	155	G/146	15	187
43	WENDEL BERRY 23A9	2	68½	G/66	15	185
44	BOB WIRTZ 23A9	1.8	55	G/52	11½	185
45	Charles Prue 23A6	60	252	4/15		36
46	Wesley Gokey 23A8	4	73	6/10		8
47	C & C construction (P) 23B7	6	175	65/73½		115
48	Gene Armstrong 23D1	3	300	75/81½		115
49	James Callahan 23D1	10	198	77/80 78		8
50	DJ Bouyea 23A9	6	80	gravel/76/74		8



BOLTON WATER SUPPLY CO
WSID#5050 TOPO. 2
1 Spring△